

USPTO Customer No. 25280

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CLAIMS

Claims 1 – 17. (Cancelled)

18. (Previously presented) A wallboard comprising:
an integral matrix of set cementitious material extending from one face of
the board to the other face of the board; and
a composite material including a carded nonwoven mat and a reinforcing
fabric layer bonded together, wherein said cementitious material extends over an
outer face of said composite material.
19. (Previously presented) The wallboard set forth in claim 18, wherein said
carded nonwoven mat is made of material selected from the group consisting of
polyester, mineral fiber, polyolefin, glass, basalt, polyamides, and any
combination thereof.
20. (Previously presented) The wallboard set forth in claim 19, wherein said
carded nonwoven mat is polyester.
21. (Original) The wallboard set forth in claim 18, wherein said reinforcing fabric
layer is made of material selected from the group consisting of glass, mineral
fiber, basalt, polyester, polyolefin, polyamides, and any combination thereof.
22. (Previously presented) The wallboard set forth in claim 21, wherein said
glass fabric layer includes continuous glass yarns.

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23. (Previously presented) The wallboard set forth in claim 18, wherein said mat and said fabric layer are bonded together by an adhesive layer positioned between said mat and said fabric layer, said adhesive being selected from the group consisting of polyacrylates, polyvinyl acetate, polyvinyl alcohol, polyvinyl chloride, polyolefin, styrene butadiene rubber, acrylic adhesive, polyvinylidene chloride, and any combination thereof.
24. (Previously presented) The wallboard set forth in claim 18, wherein said mat and said fabric layer are heat bonded together.
25. (Previously presented) The wallboard set forth in claim 18, wherein said mat and said fabric layer are ultrasonically bonded together.
26. (Previously cancelled)
27. (Previously presented) The wallboard set forth in claim 18, further comprising a second layer of said composite material wherein said second layer of composite material is embedded in an opposite face from said first layer of composite material, and wherein a continuous film of said cementitious material extends over an outer face of said second layer of composite material.
28. (Previously presented) The wallboard set forth in claim 18, wherein said fabric layer is selected from the group consisting of woven fabric, knitted fabric, and adhesively bonded fabric.

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29. (Original) The wallboard set forth in claim 18, wherein said reinforcing fabric layer has a yarn density of between 1 thread per inch and 20 threads per inch.
30. (Original) The wallboard set forth in claim 29, wherein said reinforcing fabric layer has a yarn density of between 4 threads per inch and 10 threads per inch.
31. (Previously presented) The wallboard set forth in claim 18, wherein yarn size in said reinforcing fabric layer is in the range between 40 and 4000 denier.
32. (Previously presented) The wallboard set forth in claim 31, wherein said yarn size in said reinforcing fabric layer is in the range between 150 and 2000 denier.
33. (Previously presented) The wallboard set forth in claim 32, wherein said yarn size in said reinforcing fabric layer is in the range between 220 and 1300 denier.
34. (Previously presented) The wallboard set forth in claim 18, wherein said composite is oriented in said wallboard so that said nonwoven mat is facing an outer face of said wallboard, and said reinforcing fabric layer is facing inwardly toward a core of said cementitious material.
35. (Currently amended) A method for manufacturing wallboard, said method comprising the steps of:
bonding a carded nonwoven mat to a reinforcing fabric layer to form a composite material;

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providing an aqueous cementitious slurry, and bringing said composite material into contact with said slurry; and

allowing said cementitious slurry to flow through and penetrate said composite material to form a continuous film extending over an outer face of said composite material.

36. (Original) The method set forth in claim 35, further comprising the step of providing a second layer of composite material, and embedding said second layer of composite material on an opposite side of said cementitious slurry from said first layer of composite material.
37. (Currently amended) The method set forth in claim 35, wherein said carded nonwoven mat is made of material selected from the group consisting of polyester, mineral fiber, polyolefin, glass, basalt, polyamides, and any combination thereof.
38. (Currently amended) The method set forth in claim 37, wherein said polyester carded nonwoven mat is carded polyester.
39. (Original) The method set forth in claim 35, wherein said reinforcing fabric layer is made of material selected from the group consisting of glass, mineral fiber, basalt, polyester, polyolefin, polyamides, and any combination thereof.
40. (Original) The method set forth in claim 39, wherein said glass fabric includes continuous glass yarns.

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41. (Currently amended) The method set forth in claim 35, wherein said mat and said fabric are bonded together using by an adhesive layer positioned between said mat and said fabric layer, said adhesive being selected from the group consisting of polyacrylates, polyvinyl acetate, polyvinyl alcohol, polyvinyl chloride, polyolefin, styrene butadiene rubber, acrylic adhesive, polyvinylidene chloride, and any combination thereof.
42. (Original) The method set forth in claim 35, wherein said mat and said fabric are heat bonded together.
43. (Original) The method set forth in claim 35, wherein said mat and said fabric are ultrasonically bonded together.
44. (Original) The method set forth in claim 35, wherein said cementitious material is selected from the group consisting of gypsum, concrete, mineral fibers, and any combination thereof.
45. (Original) The method set forth in claim 35, wherein said fabric is selected from the group consisting of woven fabric, knitted fabric, and adhesively bonded fabric.
46. (Original) The method set forth in claim 35, wherein said reinforcing fabric layer has a yarn density of between 1 thread per inch and 20 threads per inch.
47. (Original) The method set forth in claim 46, wherein said reinforcing fabric layer has a yarn density of between 4 threads per inch and 10 threads per inch.

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48. (Original) The method set forth in claim 35, wherein yarn size in said reinforcing fabric is in the range between 40 and 4000 denier.
49. (Original) The method set forth in claim 48, wherein said yarn size in said reinforcing fabric is in the range between 150 and 2000 denier.
50. (Original) The method set forth in claim 49, wherein said yarn size in said reinforcing fabric is in the range between 220 and 1300 denier.
51. (Original) The method set forth in claim 35, further including the step of orienting the composite material so that said nonwoven mat is facing an outer face of said wallboard, and said reinforcing fabric layer is facing inwardly toward a core of said set cementitious material.
52. (Previously presented) A paperless wallboard comprising:
 - an integral matrix of set cementitious material extending from one face of the board to the other face of the board; and
 - a composite material including a carded nonwoven mat and a reinforcing fabric layer bonded together, wherein said cementitious material extends over an outer face of said composite material.